

Abstract

A method and apparatus of in situ monitoring and dispersing unwanted particles in slurry used during CMP polishing. The method includes providing a slurry path, applying to the slurry path a microcavitation field of a first level to detect particles of a predetermined size, applying to the slurry path a microcavitation field of a second level that is capable of dispersing said particles, and after the second applying step, feeding the slurry to a CMP polishing unit. Particle size may be detected and/or the microcavitation field strength may be set according to particle size. In addition, field strength may be calibrated according to levels determined by polystyrene control particles of a known size and/or concentration. A single or dual transducer may apply the microcavitation.